

WHAT IS CLAIMED IS:

1. A reagent vessel cap comprising:

a sealing member made of an elastic body having radial slits from the center toward the outer periphery, being arranged on the opening of a vessel, and supported with a cap body, for shielding a reagent contained in the vessel from outside air; and

a pressurizing member attached to the cap above the sealing member and retained in position by the biasing force of a built-in spring member, for expanding the slits of the sealing member downwardly to open the vessel by the pressure from above and returning in position by relaxing of the pressure.

2. A reagent vessel cap, comprising:

a hollow-cylindrical cap body integrally molded of a female screw to be in engagement with a male screw formed around the outer periphery of the opening of a vessel body, a flanged engaging part projecting axially thereabove, and an engaging protrusion around the upper outer periphery;

a plate-like elastic sealing member arranged in the cap body, and integrally molded of a plurality of slits extending from the center toward the outer periphery and an engaging part having an inverse L-shape in section around

the periphery through a hinge;

a fixing member including a hollow cylinder and an engaging part formed around the lower outer periphery of the hollow cylinder, wherein the lower surface of the engaging part being arranged on the sealing member, and one end of a spring member is firmly fixed to the upper surface of the engaging part; and

a pressurizing member integrally molded of: a substrate having a through hole; an outer cylinder provided around the outer periphery of the substrate as its inner periphery being in contact with the outer periphery of the cap body; an inner cylinder provided along the through hole as its outer periphery being in contact with the inner periphery of the fixing member, the outer cylinder and the inner cylinder being vertically downwardly arranged; and an engaging protrusion provided around the lower inner periphery of the outer cylinder, the engaging protrusion being in engagement with the engaging protrusion of the cap body, wherein the other end of the spring member is firmly fixed between the outer cylinder and the inner cylinder; wherein

the pressurizing member is always positioned above the sealing member by the spring member, wherein when the pressurizing member is pushed downward against the biasing force of the spring member, the pressurizing member is

pushed downward with the cap body and the fixing member as guides, the end of the pressurizing member pushes the sealing member downward, so that the slits of the sealing member is expanded to communicate the content of the vessel with the exterior, and wherein when the pressure to the pressurizing member is relaxed, the pressurizing member returns to position, so that the sealing member returns to its initial position by its elasticity to bring the slits into close contact with each other, thereby shielding the content of the vessel from the exterior.

3. A reagent vessel cap according to Claim 1 or 2, wherein the sealing member made of a elastic plate having a specified thickness, is divided into four equal parts by the slits radially extending from the center toward the outer periphery.

4. A reagent vessel cap according to Claim 1 or 2, wherein the slits formed in the sealing member have a length from the center of the sealing member to the position with which the rim of the pressurizing member is in contact.

5. A reagent vessel cap according to Claim 2, wherein the cap body is constructed such that the rim of the flanged engaging part around the inner periphery extends downward to

be brought into contact with the inner periphery of the opening of the vessel body so as to be retained to the vessel body by the extending part and the female screw.

6. A reagent vessel cap according to Claim 2, wherein the fixing member has the hollow cylinder, the flanged engaging part around the lower periphery of the hollow cylinder, and the spring member whose one end is firmly fixed to the upper surface of the flanged engaging part, which are integrally molded of plastic.

7. A reagent vessel cap according to Claim 2, wherein the pressurizing member has a thin part at part of the upper periphery and a mark for indicating the thin part, wherein by pushing the thin part, the engagement between the cap body and the outer cylinder is cancelled.

8. A method for shielding a reagent from outside air comprising the steps of:

arranging a sealing member made of an elastic plate with radial slits from the center toward the outer periphery in the opening of a vessel body containing a reagent;

arranging an pressurizing member above the sealing member, which is retained in position by the biasing force of a built-in spring member;

pushing the pressurizing member from above to expand the slits of the sealing member downwardly, thereby opening the vessel to collect the reagent;

relaxing the pressure to return the pressurizing member to position and also to return the expanded sealing member to its initial position by the elastic property of itself, thereby bringing the slits into tight contact with each other to shield the reagent from outside air after the collection of the reagent.